Q1 (1 point). Find all the persons under the age of 18.

πname(age<18(Person))

Q2. (2 points) Find all the pizzerias that serve at least one pizza that Amy eats for less than $10.00. Print out the pizzeria name, pizza, and price.

πpizzeria, pizza, price(name='Amy' and price<10(Eatspizza Serves))

Q3. (2 points) Find all the pizzerias frequented by at least one person under the age of 18. Print out the pizzeria name, person's name, and person's age.

πpizzeria, name, age(age<18(Personname Frequents))

Q4. (2 points) Find all the pizzerias frequented by at least one person under the age of 18 and at least one person over the age of 30. Print out only the pizzeria name.

δ(π(X.pizzeria)((X.age<18 and Y.age>30) and (X.pizzeria=Y.pizzeria)((ρX(name,age,gender,pizzeria)(Personname Frequents)) X (ρY(name,age,gender,pizzeria) (Personname Frequents)))))

Q5. (2 points) Find all pizzerias frequented by at least one person under the age of 18 and at least one person over the age of 30. Print out all the quintuples (pizzeria, person1, age1, person2, age2), where person1 and person2 are persons who frequent the pizzeria, and person1 is under the age of 18 and person2 is over the age of 30.

πX.pizzeria->pizzeria,X.name->person1,X.age->age1,Y.name->person2,Y.age->age2((X.age<18 and Y.age>30) and (X.pizzeria=Y.pizzeria)((ρX(name,age,gender,pizzeria)(Personname Frequents)) X (ρY(name,age,gender,pizzeria) (Personname Frequents)))

Q6. (2 points) For each person, find how many types of pizzas he/she eats. Show only those people who eat at least two types of pizzas. Sort in descending order of the number of types of pizzas they eat.

πPerson.name, count(pizza)(τcount(pizza) desc(count(pizza)>=2(γPerson.name(PersonPerson.name = Eats.name Eats))))

Q7. (2 points) For each type of pizza, find its average price. Sort descending by average price.

πpizza, avg(price)(τavg(price) desc(γpizza(Serves)))